

Work Order ID 128411***128411***

Page 1

Friday, January 16, 2015 2:36:31 PM

Item ID: D6101-005 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle Billet
Start Date: 1/16/15 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 1/16/15 Req'd Qty: 20.00 ***20*** Customer:
Reference:

Approvals: Process Plan: MLS Date: 15-01-19 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D6101	Rev B								

100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 27208

- a) Description: Aluminum billet
b) 5.00" x 8.250" x 2.50" thick
c) Tolerance on all dimensions are +0.030"/-0.000"
d) Grain direction along 5.00" length
e) Material: 7075-T7351 (QQ-A-250/12)
f) Material certification required

CL 15/01/26 20

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

20x SP15-02-9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 128411***128411***

Page 2

Friday, January 16, 2015 2:36:31 PM

Item ID: D6101-005 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Saddle Billet
Start Date: 1/16/15 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 1/16/15 Req'd Qty: 20.00 ***20*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							DAS 14 9-89
120									
QC	Memo	0.00							
Quality Control	Ensure Material certification comply to Dwg D6101								
130	Identify as per dwg & Stock Location: <u>MT 41</u>	0.00							DAS 14 9-89
130									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

MLJ 15-02-11
(H) 15-2-10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Friday, January 16, 2015 2:36:30 PM

128411

D6101-005

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D6101-005P

7075-T7351 8.25X5.0X2.5

201

8015-02-9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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A 3D perspective drawing of a rectangular prism. The three dimensions are labeled with arrows pointing to their respective edges: 'THICK' for the vertical edge (height), 'LENGTH' for the front horizontal edge, and 'WIDTH' for the receding horizontal edge. Hidden edges are shown as dashed lines.

 ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/W

SHOCKLEY
REFRIG
INSTRUMENT CO
UNCONTROLLED COPY
SUBJECT TO AGUMENT
WARRANTY BY THE
WILSON ENGINEER
NO. 128511 M/L5
15-01-19

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV..	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. REV. B D6101 SHEET 1 OF 1 TITLE SCALE SADDLE BILLET, 7075 NTS COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	RF		
CHECKED	<i>[Signature]</i>		
MFG. APPR.	<i>[Signature]</i>		
APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>		
DATE	09.04.23		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO27208

Purchase Order Date 1/26/2015

PO Print Date 1/26/2015

Page Number 1 of 2

Order From :

VU-THY001

Ship To : DART AEROSPACE LTD

THYSSENKRUPP MATERIALS CA LTD
Q/A VPK METAL
C/O T27540
PO BOX 4275 POSTAL A
TORONTO, ON M5W 5V8
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 905-669-9444

Ship To Contact

Ship To Phone

Ship Via: Yours ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

DDP - (Delivered Duty Paid)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D6101-005P	7075-T7351 8.25X5.0X2.5	2/6/2015 Yes 2/6/2015		20.00 Each	\$56.35	\$1,127.00

AS PER DWG D6101 REV. B

BI28411

MATERIAL: 7075-T7351 (QQ-A-250/12)

SIZE: 5.00" X 8.250" X 2.50" THICK

GRAIN DIRECTION ALONG: 5.00" LENGTH

TOLERANCE AS PER QUOTE +.060"/-.000"

8015-02-9

Line Total: \$1,127.00

2	71401-45	PROCUREMENT QUALITY CLAUSES	2/6/2015		1.00	\$0.00	\$0.00
---	----------	--------------------------------	----------	--	------	--------	--------

No

3/6/2015

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

Note:

1/26/2015

L A D I N G

No: PEC 917888

Ship Date 05Feb15 at 14:56 From PFW
Probill

Via VIM TRANSFER

FOB CONCORD

Frt PREPAID

Route 0- 0 Manifest

Vhcle Trailer

Slp CARMELA AGNIHOTRI(905-5321422)

Sold To: (18170)

DART AEROSPACE (US)

1270 ABERDEEN STREET

HAWKESBURY, ONTARIO K6A 1K7

Ship To: (0291187)
DART AEROSPACE (US)
1270 ABERDEEN STREET
HAWKESBURY, ONTARIO K6A 1K7
Tel: 613-632-5200 Fax: 16136321053

B I L L O F L A D I N G

1) Our Order PEC-764450- 1 Your PO # P027208
Part # 06101-005P Rel #

ALUMINUM PLATE 7075T7351

2.50" THICK X 8.2500" X 5.0000"

PER QQ-A-250/12

GRAIN DIRECTION ALONG THE LENGTH 5.000"

Heat Number Tag No
550421 378063

Quantity PCS Wt LBS
5.73 SFT 20 211

TOTAL: Tags PCS LBS
1 20 211

MTR

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER *

** REFERENCED ON IT **

TOTAL 1 SKID GW. 235 LBS

*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA
CONCORD, ONT.* *** 9:00 AM TO 4:00 PM ***

**** TEL. 800-926-2600 ****

* WE STOCK STAINLESS STEEL *

* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT *

Page: 1Continued

154.0 Rec

Ship From:
THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 905-738-9033

Ship To: (0)
DART AEROSPACE (US)

L A D I N G

No: PEC 917888
Ship Date 05Feb15 at 14:56 From PFW
Probill
Via VIM TRANSFER
FOB CONCORD
Frt PREPAID
Route 0- 0 Manifest
Vhcle Trailer
Slp CARMELA AGNIHOTRI (905-5321422)
Sold To: (18170)
DART AEROSPACE (US)

B I L L O F L A D I N G

***PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE
ADDED TO EVERY ORDER.***

Page: 2 Last

DATE

From: ThyssenKrupp Materials NA
Cust. THYSSENKRUPP MATERIALS NA - ECAD Del.: 2403641264
CStar CSTOR 264539
Wgt.: 211.234 LB Date 01/30/2015

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

Per:

Rob Woodall

Rob Woodall
Director of Manufacturing Davenport Works

Terrence Thom

Terrence Thom
Quality Assurance Manager

Page 1 of 2

2248662	0			
Ship Date	B.L. No.	Invoice No.	Alcoa No.	Item
2015-01-10	9692180	00000	1000672745-2	DP-72745-01-2
P.O. No./Govt Contract No.	Customer Alcoa Item			
5400245946 Ln#: 0020	C&B	G041015520R26		

Ship To: COPPER & BRASS SALES INC
5 STERLING DR
WALLINGFORD 06492 CT

Item Description

2.5 IN TX $\pm .075$ $-.075$ X 48.5 IN W $(+.3125 -$
 $0-.000)$ X 144.5 IN LN $(+.5 -0.0)$ CAT D 164168 (N) A/T (7075-
T735) RECTANGLE MILL FINISH, USI 3MM DEAD ZONE REQ'D BOTH SIDES,
SAWED. AMS-QQ-A-250/12 REV A AMS-STD-
2154 REV A EXC MRK AMS4078 REV J EXC MRK
ASTMB209 REV 14 ASTMB594 REV 13 BSS7055
REV B EXC MRK MMS159 REV T PS21211 REV M
((MARKED)) KRAFT PAPER INTERLEAVED
MAX GROSS SKID WGT: 4500 LB QUAN TOL +/-
10 % USI CL A 3 MM CQR D164168 REV 38 CUST REQ 15-01-
06 *** W/E 15-01-10 ***

and 15/02/10

DAS
14
9-89

Num	Package Ticket	Lot	Weight	Quantity	UOM	Inspector Clock Numbers
1	697880	550421	1795	1	PC	47380
2	697881	550421	1793	1	PC	47380
3	697881	550422	1794	1	PC	47380
			5382	3		

Notes for CQR: D164168.38

PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154 REV A. PRODUCT PRODUCED TO THE REQUIREMENTS OF AMS-STD-2154 REV A ALSO MEET THE REQUIREMENTS OF MIL-STD-2154. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12. THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I.

CQR: D164168.38 -Specification Limits -----

Temp	Dir	UTS	TYS	EL4D
		KSI	KSI	PCT
T7351	Long Transv.	Max	63.9	
		Min	66.0	6
T7351	Elec. Cond. (EC) % MIN	38.0	PCT	

John J. Smith

From: ThyssenKrupp Materials NA
Cust. THYSSENKRUPP MATERIALS NA - ECAD Del.: 2403641264
Cslar Cstor 264539
Wgt.: 211.234 LB Date 01/30/2015

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA.

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Per:

Rob Woodell

Rob Woodell
Director of Manufacturing Davenport Works

Terrence Thom

Terrence Thom
Quality Assurance Manager

Page 2 of 2

2248662 0
Ship Date B.L. No. Invoice No. Alcoa No. Item
2015-01-10 9692180 00000 1000672745-2 DP-72745-01-2
P.O. No./Govt Contract No. Customer Alcoa Item
5400245946 Ln#: 0020 C&B G041015520R26

DAS

14

9-89

CQR: D164168.38 -Specification Limits (cont.)

Chemical Composition		SI	FE	CU	MN	MG	CR	ZN	TI	Other	
										Each	Total Aluminum
	Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15
	Min			1.2		2.1	0.18	5.1			

Alloy 7075

Lot: 550421 - Mechanical, Physical, Metallography, Quantometer Results

Temp	Dir	No->	UTS	TYS	EL4D
		Test	KSI	KSI	PCT
T7351	Long Transv.	3	69.7	58.5	10.6
			70	58.8	10.6
			70.2	58.9	10.7

T7351 Elect Cond %IACS 41.3 41.0 41.6 PCT

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9453045	Actuals	0.07	0.26	1.7	0.02	2.6	0.19	5.9	0.02

Lot: 550422 - Mechanical, Physical, Metallography, Quantometer Results

Temp	Dir	No->	UTS	TYS	EL4D
		Test	KSI	KSI	PCT
T7351	Long Transv.	3	70	58.7	10.4
			69.8	58.5	10.3
			69.9	58.6	10.5

T7351 Elect Cond %IACS 41.0 40.9 40.9 PCT

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9453045	Actuals	0.07	0.26	1.7	0.02	2.6	0.19	5.9	0.02

This material was melted in the United States or a Qualifying Country [REF DFARS 225.872.1(a)]; it was manufactured in the United States

John J. Smith

COPPER AND BRASS SALES**MATERIAL TYPE****ALUMINIUM ALLOYS****PRODUCT DESIGNATION****2014 2024 2224 2324 7050 7075 7150 7175 7475 ALUMEC 89 ALUMEC 99 QC-7****"WARNING"**

SMALL CHIPS,FINE TURNINGS AND DUST MAY IGNITE READILY.EXPLOSION POTENTIAL MAY BE PRESENT WHEN:DUST OR FINES ARE DISPERSED IN THE AIR; FINE, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH CERTAIN METAL OXIDES; OR,CHIPS,FINES,DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH WATER OR MOISTURE.KEEP AWAY FROM IGNITION SOURCE.USE EXPLOSION-PROOF VENTILATION.KEEP MATERIAL DRY.

THIS PRODUCT CONTAINS BERYLLIUM AND COPPER.INHALING BERYLLIUM DUST OR FUMES MAY CAUSE CHRONIC BERYLLIUM DISEASE (CBD),A SERIOUS CHRONIC LUNG DISEASE IN SOME INDIVIDUALS.BERYLLIUM IS A CANCER HAZARD;OVER TIME CBD AND CANCER CAN BE FATAL,TARGET ORGAN IS PRIMARILY THE LUNG.INHALING LARGE AMOUNTS OF COPPER,MAGNESIUM OXIDE,MANGANESE OXIDE,AND ZINC OXIDE FUMES OR DUST MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS.CHRONIC OVEREXPOSURE TO COPPER MAY CAUSE THICKENING OF THE SKIN;AND SKIN,TEETH,AND HAIR DISCOLORATION.CHRONIC OVEREXPOSURE TO MANGANESE DUST CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE,SCARRING OF THE LUNGS AND REPRODUCTIVE HARM IN MALES.TARGET ORGAN IS PRIMARILY THE LUNG,BUT REPEATED HIGH EXPOSURE CAN ALSO AFFECT THE LIVER.CHRONIC OVEREXPOSURE TO IRON OXIDE DUST/FUME MAY CAUSE LUNG SIDEROSIS.CHRONIC OVEREXPOSURE TO SILICON DUST CAN CAUSE CHRONIC BRONCHITIS.OVEREXPOSURE TO AMORPHOUS SILICA CAN CAUSE DRYING OF THE MUCOUS MEMBRANES OF THE EYES,NOSE,AND THROAT.

THIS PRODUCT ALSO CONTAINS NICKEL AND CHROMIUM COMPOUNDS.INHALATION OF NICKEL DUST OR FUME MAY RESULT IN INFLAMMATION OF THE RESPIRATORY TRACT AND CAUSE NASAL AND/OR LUNG CANCER.NICKEL HAS BEEN IDENTIFIED AS A POTENTIAL HUMAN CARCINOGEN.EXPOSURE TO CHROMIUM DUST OR FUMES MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE.UNDER HIGH TEMPERATURES,HEXAVALENT CHROMIUM MAY BE PRODUCED,IF IN THE INSOLUBLE FORM,IT IS A CONFIRMED HUMAN CARCINOGEN.(CALIFORNIA PROPOSITION 65).

IF COATED WITH OIL,MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT.WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.

READ THE ALUMINIUM/ALUMINIUM ALLOYS MATERIAL SAFETY DATA SHEET (MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL.

* If processing or recycling produces particulate,use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding,grinding,abrasive sawing,sanding and polishing.Any activity which abrades the surface of this material can generate airborne particulate.Use appropriate NIOSH approved respiratory protection (P95; P100 for lead with, quantitative fit testing required) if exposures exceed the permissible limits.

* The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.

* Aluminum, in solid form and as contained in finished products presents no special health risk.

* Sold for manufacturing purposes only.This product can be recycled; contact your sales representative.

For additional information, call or write to Copper and Brass Sales,22355 West Eleven Mile Road, Southfield, MI 48033,telephone 248-233-5600, or visit our web site @ www.copperandbrass.com.

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: DG101-005
 RECEIVED BY: Sonia P
 DATE: 15/02/09
 P/O#: 27208
 QUANTITY ORDERED: 20
 THICKNESS ORDERED: 5.00 X 8.25 X 2.50
 SHEET SIZE: _____
 MATERIAL CERT RECEIVED: yes
 QUANTITY RECEIVED: 20
 THICKNESS RECEIVED: 5.00 X 8.25 X 2.50
 SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	☒	
INCORRECT FINISH	Y	☒	
CORROSION	Y	☒	
INCORRECT GRAIN DIRECTION	Y	☒	
INCORRECT MATERIAL	Y	☒	
INCORRECT THICKNESS	Y	☒	
PHOTO REQUIRED	Y	☒	
CORRECT MATERIAL	☒	N	
CORRECT REF # TO LINK CERT	☒	N	
CORRECT MATERIAL IDENTIFICATION	☒	N	
CORRECT M# ON THE MATERIAL	☒	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	☒	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	☒	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>Amf</u>	14	BY: _____	
DATE: <u>15/02/10</u>	9-89	DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

INSTRUCTIONS FOR INSPECTING BAR, TUBING, ROUND, & SHEET STOCK

- 1- VERIFY STOCK TO DART PURCHASES ORDER
- 2- MEASURE ALL DIMENSIONS FOR EACH PURCHASED STOCK
 - a. WIDTH, THICKNESS, DIAMETER, WALL THICKNESS & LENGTH
- 3- VERIFY CONDITION OF MATERIAL i.e. DAMAGED, CORRODED, etc.
- 4- VERIFY THAT SUPPLIER HAS A NUMBER (HEAT #) ON ITS RECEIVING REPORT TO LINK TO MATERIAL CERTS
- 5- VERIFY MATERIAL CERTS ARE CORRECT TO THE DART PO INSTRUCTIONS
- 6- REMOVE / CUT A PIECE OF MATERIAL FOR SAMPLE HARDNESS TESTING

INSTRUCTIONS FOR INSPECTING SKIDTUBE & STEP EXTRUSION

- 1- VERIFY TO DART SUPPLIED DRAWING
- 2- SAMPLE INSPECT MATERIAL IN BUNDLE TO ENSURE MATERIAL CAN BE RECEIVED INTO DART
- 3- USING PORTABLE HARDNESS TESTER VERIFY HARDNESS OF THE MATERIAL TO THE DRAWING
- 4- VERIFY THAT MATERIAL CERTS MATCH TO WHATS CALLED UP ON THE DART DRAWING

AFTER MATERIAL PASSES INSPECTION

- 5- HAVE DART EMPLOYEES START STOCKING MATERIAL BUT REQUEST MIN **20pcs** FOR FULL INSPECTION
- 6- INSPECT ALL DIMS AS PER DRAWING REQUIREMENTS

INSTRUCTIONS FOR INSPECTING CROSS TUBE MATERIAL

- 1- VERIFY MATERIAL CERTS MATCH THE REQUIREMENTS ON THE DART DRAWINGS
- 2- INSPECT MIN. HALF THE BATCH OF EXTRUSION RECEIVED INTO DART
- 3- INSPECT MATERIAL AS PER THE EXTRUSION REPORT
 - a. WALL THICKNESS USING ULTRA-SONIC IN 4 LOCATIONS
 - b. OUTSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - c. INSIDE DIAMETER HIGHEST/LOWEST BOTH ENDS
 - d. STRAIGHTNESS @ CENTER OVER 12" SPAN
 - e. WALL THICKNESS USING TUBE MICROMETER HIGHEST/LOWEST BOTH ENDS
- 4- IDENTIFY EACH TUBE IN SEQUENCE OF INSPECTING (TUBE 1, TUBE2.....) AND W/O# AND PO#
- 5- RECORD ALL FINDINGS ON EXTRUSION REPORT

IF ANY QUESTIONS PLEASE SEE QC COORDINATOR BEFORE GOING FURTHER